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The Fossil Blattoid Genus Amazonina. Taxonomy and Geographical Distribution

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Abstract — It is described a new fossil blattoid (Insecta) *Amazonina purperae* Pinto, sp. nov. from Minas Gerais State, Brazil, founded in a purplish clay-stone associated with a taphoflora atributed to a Pleistocene age. The sample came from an outcrop at the km 30.25 of the Road BR-262 Belo Horizonte-Uberaba. It presents only one tegmina imprint which is the first fossil of the genus *Amazonina* Herbard, 1929 which has a large distribution on South and Central America. The tegmina is quite similar to the tegminas of *Amazonina rehni* Albuquerque, 1964 but differs from it by the number of branches and for the more proximal bifurcation of the posterior branch of **R**. Otherwise *A. rehni* presents the distal end of **M** forked which did not occurs in the wings of the new species.

Resumo — É descrito um novo blatóide fóssil (Insecta) *Amazonina purperae* Pinto, sp. nov., do Estado de Minas Gerais, encontrado em argilito arrocheado associado a uma tafoflora atribuída ao Pleistoceno. O material é proveniente do km 30,25 da Rodovia BR-262, Belo Horizonte-Uberaba. A amostra contem um único élitro. Trata-se do primeiro blatídeo fóssil de *Amazonina*, Hebard, 1929 gênero de ampla distribuição na América do Sul e América Central. O élitro apresenta extraordinária semelhança com os élitros de *Amazonina rehni* Albuquerque, 1964, dos quais se diferencia pelo número de ramos e pela bifurcação mais próximal do ramo posterior de **R**. Outrossim, *A. rehni* apresenta uma bifurcação distal de **M** que não existe na nova espécie.

INTRODUTION

In 1972 Doctors Rubens da Silva Santos and Lelia Duarte found near the Paraopeba River, Minas Gerais State, an insect imprint which was furnished to the present author. The study of this fossil was interesting because it appeared to belong to a living genus. Unfortunately most entomologists does not give the necessary attention to the insect wings, poorly describing or representing them or not at all, when creating a new species. This fact causes a great difficulty for the study of fossil insects, specially because a great number of them is classified based only on the structure of the wings in spite of some known variability of the wings venation.

The new species is dedicated to Professor Dr Ivone Purper who just retired and was cooperating and publishing with the present author for many years.

GEOGRAPHICAL AND STRATIGRAPHICAL DATA

The purplish clay-stone sample with the tegmina imprint was collected at the km 30.25 of the Road Belo Horizonte-Uberaba, Mateus Leme county in an elevation at 1500 meters W of the bridge over the Paraopeba River. According to Fonseca & Costa (1971) the sedimentary rocks are about 9 meters thick of yellow, ferruginous to purplish clay-stones and 1 meter from a conglomerate of quartz pebbles and boulders. This sequence rests over a one of micaxist with beds of grey clays belonging probably to Rio das Velhas Series. The insect wing was associated with fossil plants believed to be of Pleistocene age.

TAXONOMY

Classis Insecta
Infra Classis Neoptera
Super Ordo Blattopteroidea
Ordo Blattodea
Familia Blattidae
Sub Familia Pseudomopinae

Tribus Blattelini Rehn, 1951

Tegmina with Subcosta simple. Radius with branched apical rami and very long posterior ramus. Media and Cubitus are fused. Cubitus possibly reduced to a single posterior branch which goes toward the apex. The plical furrow is subangular apically.

Amazonina Hebard, 1929

Diagnosis - Small to medium size for the group. Tegmina very delicate and diaphanous. Media and Cubitus longitudinal. Cubitus single.

Type-species *Phyllodromia conspersa* Brunner, 1865.

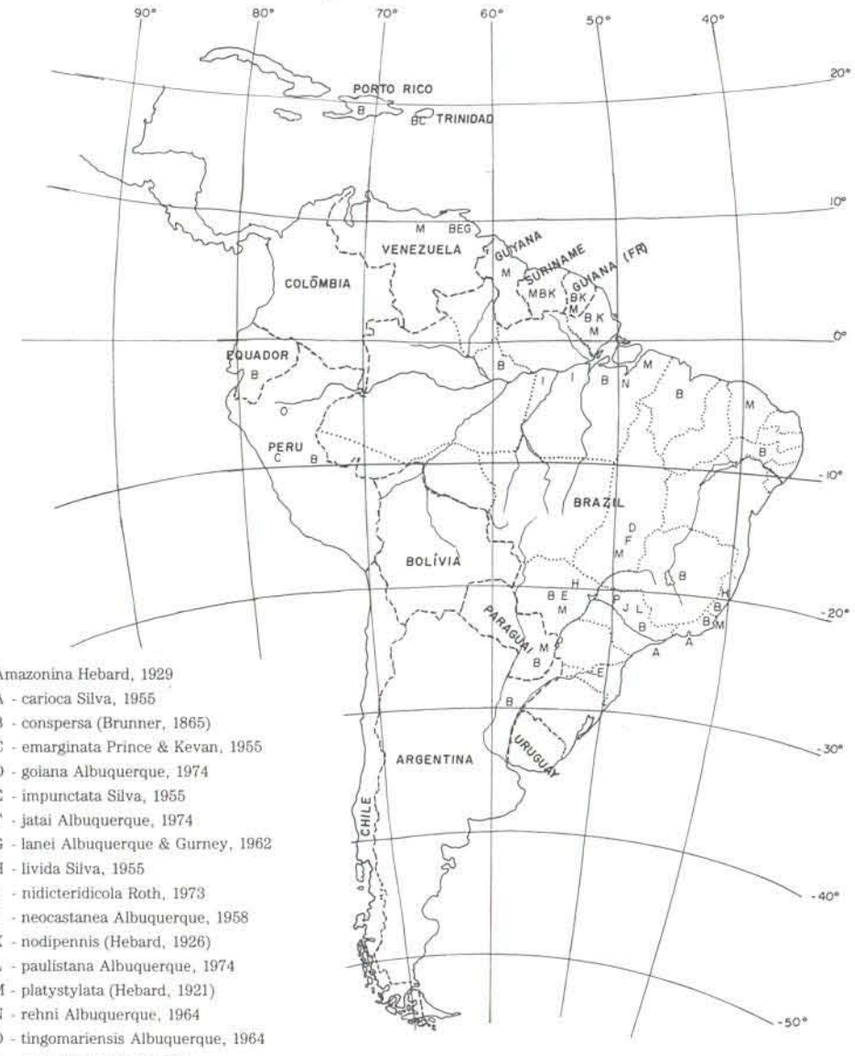
Remarks - It presents great similarity with the genus *Imblattella* (Fig. 2a-c) but differs in having the posterior branch of the Radius very longer.

Geographical distribution - The genus *Amazonina* occurs in South and Central America. Figure 1 and Table 1 based in Albuquerque, 1974.

Amazonina purperae Pinto, sp. nov.
Figures 3 and 4

	Argentina	Paraguay	BRAZIL: Santa Catarina	São Paulo	Rio de Janeiro	Espírito Santo	Minas Gearis	Pernambuco	Ceará	Goiás	Mato Grosso do Sul	Maranhão	Pará	Amazonas	Amapá	Equador	Perú	Venezuela	Guyana	Surinam	Guiana (Fre)	Trinidad	Porto Rico
carioca Silva, 1955				•	•																		
conspersa (Brunner, 1865)	•	•		•	•	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•
emarginata Prince & Kevan, 1955																	•					•	
goiana Albuquerque, 1974										•													
impunctata Silva, 1955											•							•					
jataí Albuquerque, 1974										•													
lanei Albuquerque & Gurney, 1962															•			•					
livida Silva, 1955						•					•												
nidicteridicola Roth, 1973													•	•									
neocastanea Albuquerque, 1958				•																			
nodipennis (Hebard, 1926)																				•	•		
paulistana Albuquerque, 1974				•																			
platystylata (Hebard, 1921)		•	•	•	•		•		•	•	•	•	•	•			•	•	•	•	•		
rehni Albuquerque, 1964													•										
tingomariensis Albuquerque, 1964																	•						
purperae Pinto, sp. nov.							•																

Table I — Geographical distribution of Amazonina Hebard, 1929



Amazonina Hebard, 1929
A - carioca Silva, 1955
B - conspersa (Brunner, 1865)
C - emarginata Prince & Kevan, 1955
D - goiana Albuquerque, 1974
E - impunctata Silva, 1955
F - jatai Albuquerque, 1974
G - lanei Albuquerque & Gurney, 1962
H - livida Silva, 1955
I - nidicteridicola Roth, 1973
J - neocastanea Albuquerque, 1958
K - nodipennis (Hebard, 1926)
L - paulistana Albuquerque, 1974
M - platystylata (Hebard, 1921)
N - rehni Albuquerque, 1964
O - tingomariensis Albuquerque, 1964
P - purperae Pinto, sp. nov.

Figure 1 — Geographical distribution of *Amazonina* Hebard, 1929 (modified from Albuquerque, 1974).

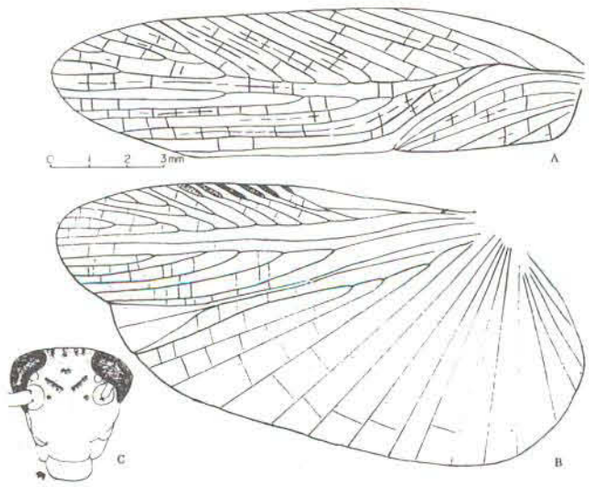
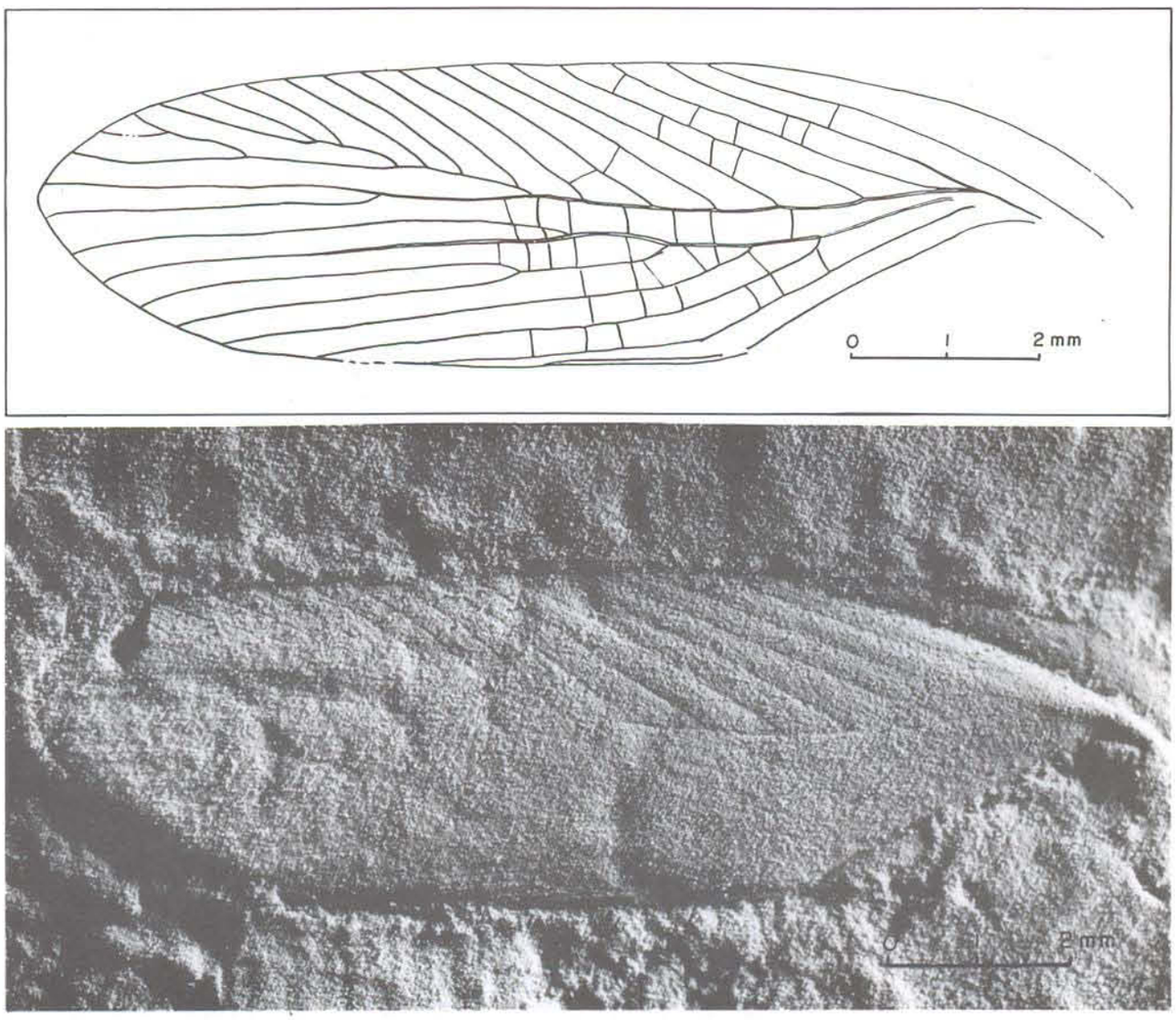


Figure 2 — *Imblatella gracillis* Albuquerque, 1964. Holotypus male U.S. Nat. Mus. 675-12 Tingo Maria, H.A. Allard Coll.
a) Tegmina. Size 13.0 mm long, 4.0 mm wide b) Hind-wing c) Head.

Designatio nominis: In honour to Professor Dr Ivone Purper.
Holotypus: One tegmina imprint, UFRGS-MP-I-6609.
Locus typicus: km 30.25, BR-262, Mateus Leme County, Minas Gerais State, Brazil.
Stratum typicum: Pleistocene.

Diagnosis — A tegmina imprint 12.0 mm long, 3.5 mm wide; **SC** a little bigger than the anal area; **R** anterior side with seven single oblique rami, one branched ramus and at posterior side one very long bifurcate ramus; **M** with six branches reaching the apical and the posterior margins; **CuA** simple; anal area more than one third the length of the tegmina.

Description — Tegmina 12.0 mm long and 3.5 mm wide nearly eliptical and almost three and three quarter times as long as wide with apical margin acute. Costal area reduced, reaching about two fifths the length of the tegmina with a **Sc** simple vein sligthtly bigger than the anal area. **R** extending in an almost straight line till the apex having: at anterior side seven oblique



Figures 3 and 4 — *Amazonina purperae* Pinto, sp. nov. Holotypus UFRGS MP-I-6609 from km 30.25 BR-262. Mateus Leme County, Minas Gerais State, Brazil. Size of the tegmina 12.0 mm long, 3.5 mm wide.

simple rami and an eighteen ramus with five branches: three simple, two bifurcate directed forward to the apical margin and at posterior side one long bifurcate parallel branch which reaches the apex of the tegmina. **R** takes up nearly half the surface of the tegmina. **M** runs parallel to **R** presenting: three posterior branches, two simple and one bifurcate sent obliquely forward, part striking the posterior margin and part the apical margin; and one fifth long anterior parallel branch reaching the tip of the tegmina. **CuA** a simple oblique vein parallel to **M** branches curving abruptly at the posterior margin and running parallel to it until after half length of the tegmina. Oblique strong plical furrow parallel to **CuA** reaching the posterior margin about one quarter of the tegmina length. The anal veins are not preserved. A series of cross-veins are seen between the branches of **R**, **M** and **CuA**.

Remarks — Highly similar to *Amazonina rehni* Albuquerque, 1964 (Fig. 5a-e) from Benfica, Pará State, Brazil. Differs from that species in:

a) **R** with seven simple rami before the bifurcation, while *A. rehni* has eight simple rami.
b) The anterior apical branch of **R** has five rami, the first three simple; while *A. rehni* has four branches, the first two branched.
c) The posterior apical branch of **R** bifurcates early, than that of *A. rehni*.
d) *A. rehni* presents a distal bifurcation of **M**.

It was not possible to compare with many other species because unfortunately some authors when describe new species do not illustrate the wings and when they describe them, do it so poorly that is not possible to make any comparison.

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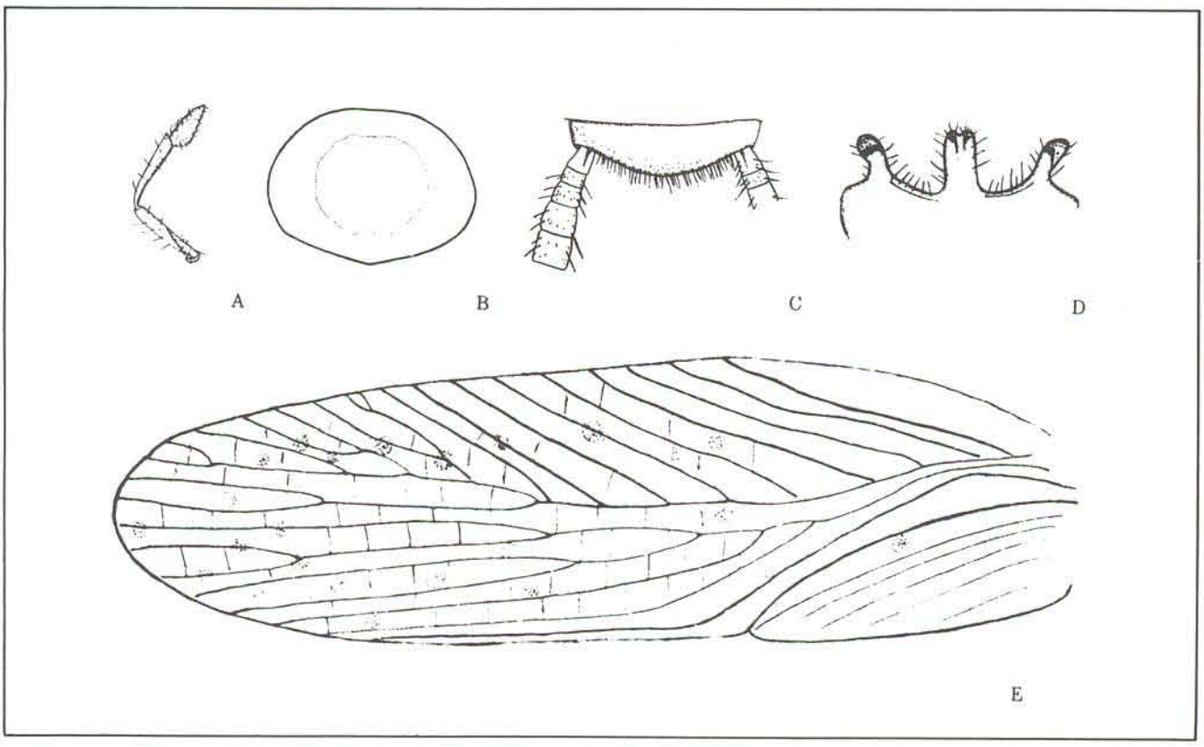

Figure 5 — *Amazonina rehni* Albuquerque, 1964. Holotypus male J. and B. Bechyne Coll. 10-VIII-1962. Benfica, Pará State, Brazil. a) Antenna b) Pronotum c) Male supra-anal plate d) Male subgenital plate e) Tegmina Size 14.0 mm long, 3.5 mm wide.

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